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ASSIGNING MEANINGS TO UTTERANCES IN A SPEECH RECOGNITION SYSTEM

This application is a CON of 09/977,520 10/12/2001 PAT 6,704,710 which is a CON of 07/999,016 12/31/1992 PAT 6,311,157

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to speech recognition systems. More specifically, this invention relates to the generation of language model(s) and the interpretation of speech based upon specified sets of these language model(s).

2. Background of Related Art

To increase the utility of computer systems, many manufacturers have been seeking to achieve the goal of speaker independent speech recognition. This technology would allow the computer system to be able to recognize and respond to words spoken by virtually anyone who uses it. Unfortunately, the performance of processors in personal computer systems and the techniques used to implement the technology have been typically inadequate for handling the complexity of such speech recognition tasks.

One problem is simply the complexity of the algorithms used for speech recognition. Even the fastest personal computers have difficulty performing all of the computation required for speech recognition in real time (the time it takes for a human to speak the utterance being recognized), so that there is a noticeable delay between the time the user has finished speaking and the time the computer generates a response. If that time delay is too large, the usefulness and acceptance of the computer system will be greatly diminished.

Another problem with speech recognition systems is accuracy. In general, as the number of utterances that a speech recognition system is programmed to recognize increases, the computation required to perform that recognition also increases, and the accuracy with which it distinguishes among those utterances decreases.